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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

Ryo KANNO, et al. : EXAMINER: HOFFMANN, JOHN M.

SERIAL NO: 10/600,658

FILED: JUNE 23, 2003 : GROUP ART UNIT: 1791

FOR: METHOD AND SYSTEM FOR

POSITIONING A GLASS PLATE, AND METHOD AND SYSTEM FOR BENDING A GLASS PLATE

REPLY BRIEF

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

This is a Reply to the Examiner's Answer dated June 30, 2008.

I. STATUS OF THE CLAIMS

Claims 1, 4-6, 11, 12, and 25-33 are pending. Claims 1, 4-6, 11, 12, and 25-33 stand rejected, Claims 2, 3, 7-10, 13-24 are canceled, and the rejection of Claims 1, 4-6, 11, 12, and 25-33 is herein appealed.

II. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL¹

Whether Claims 1, 4-6, 11, 12, and 25-33 are unpatentable under 35 U.S.C. § 103(a) as obvious over Letemps et al. (hereinafter "Letemps").

¹ As indicated on page 4 of the Examiner's Answer of June 30, 2008, the rejection of Claims 1, 4-6, 11, 12, and 25-33 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,226,942 to <u>Letemps et al.</u> (hereinafter "<u>Letemps</u>") is withdrawn.

III. ARGUMENT

The withdrawal of the rejection of Claims 1, 4-6, 11, 12, and 25-33 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,226,942 to Letemps is acknowledged. The Examiner's Answer clarifies certain aspects of the final rejection of Claims 1, 4-6, 11, 12, and 25-33 under 35 U.S.C. § 103(a) as unpatentable in view of Letemps. Nevertheless, Appellants still believe that this final rejection is improper for the reasons provided in the Appeal Brief, and for the following additional reasons, which address points raised in the Examiner's Answer.

A. Summary of Claimed Subject Matter.

The Examiner's Answer asserts that the summary of the claimed subject matter in the Appeal Brief filed May 6, 2008 is deficient. Appellants do not understand this objection and are baffled the Examiner's Answer reading of the claims. However, in order to facilitate a better understanding of the claimed subject matter on Appeal, Appellants now provide a more detailed explanation of the subject matter defined Claim 1, with specific reference to the portions of the Figures and Specification that provide support for these features.

For the sake of context, and not intended to limit the scope of the claims, a brief explanation will be made about a conventional production procedure for creating curved glass plate, which is used as automobile windows. (Page 1, lines 6-8.) First, a flat glass plate, which has been cut in a certain shape, is conveyed through a heating furnace by a roller conveyor to be heated to a glass bending temperature (600 to 700°C.) by a heater in the heating furnace. (Page 1, lines 8-12.) Next, the heated glass plate is conveyed onto a bending stage to be pressed, be bent by its own weight or be subjected to another bending treatment so as to have a desired curvature there. (Page 1, lines 12-15.) After that, the bent

plate glass is conveyed onto an air cooling/tempering stage, and cooling air is blown against both surfaces of the bent plate glass from upper and lower blowing heads provided in the air cooling/tempering stage to cool and temper the plate glass, producing a tempered glass plate having a desired curved shape. (Page 1, lines 15-21.)

The glass plate, which has been conveyed to an outlet of the heating furnace, is positioned so as to have its posture conformed to a reference posture by a positioner and then is conveyed onto the bending stage to be bent. (Page 1, line 22 to page 2, line 4.) Appellants recognized the conventional positioner causes several problems since, in order to bend a glass plate with good precision, the glass plate needs to be accurately positioned so as to take the reference posture before being conveyed onto the bending stage. (Page 2, lines 4-8.)

Specifically, it has been necessary to use a positioner suited to the model type of a glass plate to be bent. (Page 2, lines 8-10.) In order to position a glass plate, the arms of the positioner need to come into contact with the glass plate, which has been heated to the glass bending temperature and been softened. (Page 2, lines 11-14.) As a result, the glass plate can become deformed by the impact caused by the contact with the arms, and that the glass plate is abraded by slippage on a roller. (Page 2, lines 14-17.) Additionally, with the conventional method, there is a limitation to the improvement in productivity since it is necessary to stop the glass plate in the middle of conveyance before positioning the glass plate. (Page 2, lines 18-21.)

By contrast, Claim 1 recites:

A method for positioning a glass plate, comprising:
conveying a glass plate by a roller conveyor including a plurality
of rollers, each roller having a rolling axis;
determining a first posture of the glass plate being conveyed by
the roller conveyor;

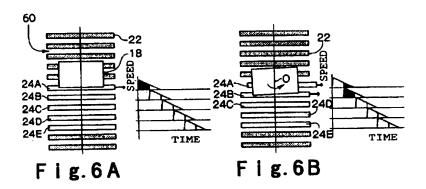
comparing the first posture to a previously stored reference posture; and

moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture,

wherein the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers.

As set forth in the Appeal Brief filed May 6, 2008, these features are fully supported at least at page 16, line 8 to page 22, line 15 of the specification as originally filed, with reference to Figures 6A-6F. Figure 6A illustrates a glass plate 18, which has a rectangular shape and is put at a substantially central portion of a roller 22, that is ultimately repositioned at an oblique angle with respect to the conveying direction, as can be seen in Figure 6F by a plurality of positioning rollers 24A to 24F. (Page 16, lines 8-15.) Figure 6A, reproduced below, illustrates a state wherein the leading edge of the conveyed glass plate 18 in the conveying direction has made contact with the positioning roller 24A. (Page 17, lines 19-21.) Immediately after that, the positioning roller 24A is moved in the right direction in this figure. (Page 17, lines 19-23.) Figure 6B shows a state wherein the leading edge of the conveyed glass plate 18 in the conveying direction has made contact with the positioning roller 24B. (Page 17, lines 24-26.) Immediately after that, the positioning roller 24B is moved in the right direction in this figure, and the movement of the positioning roller 24A in the right direction is decelerated. (Page 17, line 27 to page 18, line 3.)

² It is Appellants' understanding that, under the rules of Practice before the Board of Patent Appeals and Interference, 37 C.F.R. § 41.37(c) requires that a concise explanation of the subject matter recited in each independent claim be provided with reference to the specification by page and line numbers and to the drawings by reference characters. However, Appellant's compliance with such requirements anywhere in this document should in no way be interpreted as limiting the scope of the invention recited in all pending claims, but simply as non-limiting examples thereof.



Though not limited to this example implementation, the foregoing description fully supports the claimed (emphasis added) "moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance," and (emphasis added) "the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers."

Moreover, as stated at page 20, line 24 to page 21, line 4, of the specification as originally filed, "[b]y the method for positioning the glass plate 18 according to this embodiment, while the glass plate 18 is being conveyed by the positioning rollers 24A to 24E, the posture of the glass plate is conformed to the reference posture by axially displacing the positioning rollers 24A or 24E in contact with the glass plate 18. Accordingly, the glass plate 18 can be positioned without being deformed or damaged."

Thus, the statement at page 3 of the Examiner's Answer that "[t]he claim 1 language 'to position the glass plate so as to conform the glass plate to the previously stored reference posture'...has little resemblance to any portion of page 16, line 8 to page 22, line 15 as referred to in the summary" is without merit, and reflects a poor reading of the specification as originally filed.

Indeed, page 21, line 18 to page 22, line 3 of the specification as originally filed states:

The image of the glass plate 18, which is being conveyed by the roller conveyor 20, is captured by the line sensor 60, the posture of the glass plate 18 is recognized based on the captured image of the glass plate 18 in conveyance, the recognized posture is compared with the reference posture previously stored in the memory to find the deviation amount θ of the glass plate, the axial displacement amounts for the respective positioning rollers 24A to 24E are found based on the found deviation amount θ , and the respective positioning rollers 24A to 24E are axially moved in response to the found deviation amounts by the respective servomotors 54. Thus, the glass plate 18 can be automatically positioned.

Accordingly, it is submitted the Summary of the Claimed Subject Matter in Section V of the Appeal Brief filed May 6, 2008 is complete.

B. The Claims on Appeal have not been properly examined.

1. The Claims on Appeal recite a method, not an apparatus.

Claim 1 recites a method for positioning a glass plate that includes "moving at least one of the plurality of rollers...so as to conform the glass plate to the previously stored reference posture." The Examiners Answer states "it appears that appellant is literally interpreting 'to position' and 'to conform' as being reasons for moving. Examiner finds that the rational for moving to fail to define over Letemps. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art."

Claim 1 is a method claim, not an apparatus claim. The recitation of "moving...so as to conform the glass plate to the previously stored reference posture" limits the claimed step

³ See the Examiner's Answer at page 14, lines 10-15.

to a motion that conforms a glass plate to a previously stored reference posture. If a roller is moved, but does not conform a glass plate to a previously stored reference posture, it does not meet the limitation recited in Claim 1.

The application of "intended use" to a method claim is, at best, misplaced. In view of this improper interpretation, it is submitted that the claims have not received a full examination. Accordingly, it is respectfully requested that the rejection of Claims 1, 4-6, 11, 12, and 25-33 be reversed.

2. The Examiner's Answer improperly interprets individual claim limitations in isolation.

Appellants strongly disagree with the contention on pages 6-7 of the Examiner's Answer that the interpretation of any of the limitations in Claim 1 in view of <u>Letemps</u> is not in dispute. Pages 6 to 11 of the Examiner's Answer improperly reads the limitations in isolation. *See, e.g., In re Geerdes*, 180 USPQ 789, 791 (CCPA 1974) ("every limitation in the claim must be given effect rather than considering one in isolation from the others"). Indeed, the Examiner's Answer's reading of the claim limitations in isolation results in a myopic view of several of the claim limitations. For example, Claim 1 recites, in part:

- (A) moving at least one of the plurality of rollers <u>in a direction</u> <u>substantially parallel to the rolling axis</u>...
- (B) ...wherein the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers.

These two limitations are related, as the recitation in limitation (B) further limits the type of moving recited in limitation (A). In particular, limitation (A) requires that the moving be "in a direction substantially parallel to the rolling axis," and limitation (B) further limits

the claimed moving to "moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers." Thus, in order to meet limitation (A) as limited by limitation (B), (1) at least one of a plurality of rollers must be moved in a direction substantially parallel to the rolling axis, and (2) each of the at least one of the plurality of rollers is move independently with respect to each other roller of the plurality of rollers.

Nevertheless, the Examiner's Answer interprets limitation (A) in isolation on pages 7-10, and then interprets limitation (B) in isolation on pages 10-11. In particular, in interpreting limitation (B), the Examiner's Answer states "[t]he movement of one roller 29 (which is in contact with the glass sheet), would be independent of any roller 23." However, none of the roller 23 of Letemps are moved in a direction substantially parallel to the rolling axis, as required by limitation (A). This interpretation is improper, and it is respectfully requested the rejections of Claims 1, 4-6, 11, 12, and 25-33 be reversed.

C. Letemps fails to disclose or suggest the claimed moving step.

As discussed above, the Examiner's Answer improperly dissects Claim 1 and addresses each of its limitations. However, even when read in isolation, <u>Letemps</u> fails to disclose or suggest all of the recited limitations.

Claim 1 recites

...moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture...

⁴ See the Examiner's Answer at page 10, lines 19-20.

Thus, the above limitation in Claim 1 requires moving at least one of the plurality of rollers:

- (A) in a direction substantially parallel to the rolling axis,
- (B) when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, and
- (C) the moving must be to position the glass plate so as to conform the glass plate to the previously stored reference posture

Letemps, stating "Letemps does not disclose the moving occurs 'when the at least one of the plurality of rollers is in contact with the glass plate in conveyance'." However, rather than presenting a *prima facie* case of obvious as to why this element would be obvious in view of Letemps, the Examiner's Answer applies Letemps in view of Appellants own claims in order to *invent an additional step* that is in no way suggested by Letemps. In *KSR v. Teleflex*, 82 USPQ2d 1385, 1397 (2007), the Supreme Court recognized "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments based on *ex post* reasoning." (citing *Graham v. John Deere Co.*, 148 USPQ 459 (1966).

<u>Letemps</u> describes a curving tool 17 that is repositioned to receive a glass sheet exiting from a furnace. <u>Letemps</u> states that "it is the whole of this portion 17 of the conveyor which will be realigned relative to the direction effectively followed by the glass sheet 18 in proximity to the exit from the furnace 19." As can be seen in Figure 2 of <u>Letemps</u>, the portion 17 is moved *prior to* the arrival of sheet 18 based on information gathered by two

⁵ See the Examiner's Answer at page 8, lines 4-5.

⁶ See Letemps, at col. 7, lines 38-42.

contactless detectors 21 and 22.⁷ This activity in <u>no way</u> meets the requirements of Claim 1 which recites moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate.

1. The first rationale for obviousness in the Examiner's Answer.

The Examiner's Answer asserts that "[i]t would have been obvious to return the frame/rollers back to center while the glass plate is still on the rollers, so that each plate is better aligned with additional processing/packaging equipment." In essence, the Examiner's Answer states that it would be obvious to move the portion 17 while it is contact with the glass in order to align it with the secondary cooling conveyor 20, which immediately follows. However, this line of reasoning *ignores* the contrary disclosure in Letmeps, which states, with respect to repositioning, "[t]his orientation affects, however, only the portion 17 and there is no reason to reorientate the secondary cooling conveyor 20, which in any case receives only glass sheets already toughened, the temperature of which therefore excludes any possibility of further deformation."

In short, the Examiner's Answer posits a solution to a problem that <u>Letemps</u> states <u>does not exist</u>. After *KSR*, the Federal Circuit has recognized that contrary teachings in the prior art must be considered. For example, in *In re Sullivan*, 84 USPQ2d 1034 (Fed, Cir. 2007), the Federal Circuit <u>vacated</u> the PTO Board determination of obviousness, and noted that, even if a *prima facie* allegation of obviousness is made, the PTO must consider evidence

⁷ See <u>Letemps</u>, at col. 7, lines 51-55.

⁸ See the Examiner's Answer, at page 8, lines 16-18.

⁹ See Letemps, at col. 7, lines 42-47.

"that the prior art teaches away from the claimed invention in any material respect." 84 USPO2d at 1038 citing *In re Peterson* 315 F3d 1325, 1331 (Fed. Cir. 2003).

In another recent post-KSR case, the Federal Circuit recognized that the teaching, suggestion, or motivation test (TSM) should not be rigidly applied, but that a flexible TSM test remains a "primary guarantor against a non-statutory hindsight analysis." More particularly, in *Ortho-McNeil Pharmaceutical Inc. v. the Mylan Laboratories, Inc.*, 86 USPQ2d 1196, 1201-1202 (Fed. Cir. 2008), the Federal Circuit <u>affirmed</u> the district court finding of <u>nonobviousness</u>, recognizing:

As this court has explained, however, a flexible TSM test remains the primary guarantor against a non-statutory hindsight analysis such as occurred in this case. In re Translogic Tech., Inc., 504 F.3d 1249, 1257 [84 USPQ2d 1929] (Fed. Cir. 2007) ("[A]s the Supreme Court suggests, a flexible approach to the TSM test prevents hindsight and focuses on evidence before the time of invention."). The TSM test, flexibly applied, merely assures that the obviousness test proceeds on the basis of evidence – teachings, suggestions (a tellingly broad term), or motivations (an equally broad term) – that arise before the time of invention as the statute requires.

In this case, the record amply supports the district court's finding of nonobviousness. This court detects no rigid application of the evidentiary requirements for obviousness in the district court's analysis. ... Of particular importance beyond the prima facie analysis, this court also detects evidence of objective criteria showing nonobviousness.

The Examiner's Answer fails to establish a prima facie allegation of obviousness, in that the Examiner's Answer completely ignores the fact that the prior art teaches contrary to moving at least one of the plurality of rollers when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, and the Examiner's Answer provides

absolutely no support for the allegation that one skilled in the art would proceed <u>contrary</u> to the teachings of the cited references in order to arrive at the present invention. It is respectfully submitted that consideration of the teachings of the cited references demonstrates the non-obviousness of the present invention.

2. The second rationale for obviousness in the Examiner's Answer.

The Examiner's Answer states, as a second rationale for obviousness, (emphasis added) "Even without the advantage of having all of the plates aligned after leaving the rollers, such would have been obvious because rearranging the order of steps is generally not a patentable invention. Knowing that the rollers have to be re-centered each time, it would have been obvious to do it when the glass is still in contact with them - or after they are have left." The Examiner's Answer statement is factually inaccurate.

<u>Letemps</u> does <u>not</u> state that the portion 17 "have to be re-centered each time," as asserted in the Examiner's Answer. Instead, <u>Letemps</u> states "the accuracy of the centering may be improved, because the initial position of the taking-over tool is known with great exactness, either *because the preceding position was memorized* or more simply because the taking-over tool is replaced between two successive glass bodies to a reference position corresponding, for example, to a perfect alignment." Thus, <u>Letemps</u> indicates that there are at least two possibilities: (1) the portion 17 is re-centered, <u>or</u> (2) the portion 17 can move directly from its previous position *because the preceding position was memorized*.

Moreover, the Examiner's Answer does far more than *re-arrange* a series of steps.

The Examiner's Answer *introduces an entirely new* step. As discussed above, <u>Letemps</u>

describes that this new step for the purposes of re-centering is <u>unnecessary</u>, because "there is

¹⁰ See <u>Letemps</u>, at column 3, lines 15-22 (emphasis added).

no reason to reorientate the secondary cooling conveyor 20, which in any case receives only glass sheets already toughened, the temperature of which therefore excludes any possibility of further deformation."¹¹

3. The third rationale for obviousness in the Examiner's Answer.

The Examiner's Answer further states "There is still the further advantage of saving time: one would save time by re-centering the rollers, while the glass is still in contact, rather than waiting until after they have left the rollers. The process could save time by not having the next sheet wait for the machine to re-center." This rationale relies on the faulty assumption that the portion 17 must be re-centered between subsequent sheets of glass. However, as discussed above, Letemps describes that a preceding position can be memorized. Thus, when the portion 17 is able to move directly to an appropriate position to receive the next glass sheet in conveyance without first re-centering, such a step would be faster than the method proposed by the Examiner's Answer.

4. The fourth rationale for obviousness in the Examiner's Answer.

The Examiner's Answer further states "It would have been obvious to try to re-center the rollers prior to the ejection of the glass sheet - since there is a finite number of predictable solutions (i.e. 2 prior to ejection vs. after rejection). Col. 2, lines 48-49 of Letemps teaches a market pressure of high output rates. The re-centering prior to ejection is deemed to be of ordinary skill and common sense. Performing two steps simultaneously, rather than sequentially, is generally not a matter of innovation." This rationale also relies on the faulty assumption that the portion 17 <u>must</u> be re-centered between subsequent sheets of glass.

¹¹ See Letemps, at col. 7, lines 42-47.

¹² See the Examiner's Answer, at page 9, lines 23-26.

Moreover, this rationale fails to consider all of the limitations in Claim 1, but instead reads them in isolation. Claim 1 requires:

...determining a first posture of the glass plate being conveyed by the roller conveyor;

comparing the first posture to a previously stored reference posture; and

moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance, to position the glass plate so as to conform the glass plate to the previously stored reference posture...

Thus, Claim 1 requires that when the at least one of the plurality of rollers are moved to position the glass plate so as to conform the glass plate to the previously stored reference posture, the previously stored reference posture is the same reference posture to which the first posture of the glass plate being conveyed by the roller conveyor is conveyed.

By contrast, the Examiner's Answer proposes to move the portion 17 so as to *recenter* the portion 17. Thus, by reading "reference posture" in isolation, the Examiner's Answer interprets the "reference posture" to be a reference posture of the portion 17, not of the glass plate. This interpretation is improper, and it is respectfully requested the rejections of Claims 1, 4-6, 11, 12, and 25-33 be reversed.

D. <u>Letemps</u> does not disclose or suggest such that the rollers are moved independently with respect to each other roller of the plurality of rollers.

Claim 1 recites the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers *independently* with respect to each other roller of the plurality of rollers. The Examiner's Answer states "[a]s to the 'independently' limitation: it is noted that such is not defined nor described in the specification. Nor is there

any special art-recognized meaning ascribed to this."¹³ As set forth in several of the previous responses and as discussed each of the three personal interviews conducted in this case thus far, this feature is fully supported in the disclosure as originally filed.

Figure 3, reproduced below, of the disclosure as originally filed illustrates an example construction of a positioning roller, such as rollers 24A-24E illustrated in Figures 6A-6F. As described at page 13, lines 3-24, for example, "the axial displacements of the respective positioning rollers 24A to 24E are controlled under the actions of the respective servomotors 54." Thus, each roller can be moved *independently* by its own *independent* servo motor 56.

Fig. 3

49

24A(24B,24C,24D,24E) 42

54 58 24A(24B,24C,24D,24E) 42 44A 45 45 45 46 56 50 50 48 47

By contrast, with reference to Figure 2, of <u>Letemps</u>, <u>Letemps</u> states "the whole of this portion 17 of the conveyor [] will be realigned relative to the direction effectively followed by the glass sheet 18 in proximity to the exit from the furnace 19." Thus, all of the rollers 29 are moved at once, and none of them are moved *independently* with respect to each other roller of the plurality of rollers in the portion 17.

Nevertheless, the Examiner's Answer provides a confused interpretation of Claim 1, stating "each roller 29 has is own path - those the further from the pivot point the faster the movement. Since each movement is at a different speed from the others, each movement is

¹³ See the Examiner's Answer at page 11, lines 4-6.

¹⁴ See Letemps, at column 7, lines 38-42.

independent." Regardless of whether the paths of each roller 29 of the portion 17 trace different paths when they are moved, the movement of each of the rollers 29 in a direction substantially parallel to their respective rolling axes are inextricably tied together by way of their structural relationship. Simply stated, moving one roller 29 of the portion 17 of Letemps in the claimed direction would cause all other rollers 29 in the portion 17 to also move, because they are all connected. By analogy, it is doubtful that at pair of convicts in a chain gang would consider their leg motions to be independent when their immediate neighbor takes a step.

Indeed, the Examiner's Answer acknowledges "Examiner realizes it is quite easy to see a difference between applicant's individual movement, and that of Letemps," but nevertheless states "Examiner cannot reasonably indicates that one interpreting the claims in light of the specification would see that the claims exclude Letemps - most notably because it would require an unreasonable narrowing of the claims that would permit easy avoiding of infringement, merely by inter-relating roller movements." The latter statement is a non-sequitur that has no place in the proper place examination of the claims. If Letemps fails to disclose or suggest the broadest reasonable interpretation of limitation recited in a claim, as is apparently acknowledged by the Examiner's Answer, the rejection can not properly be sustained.

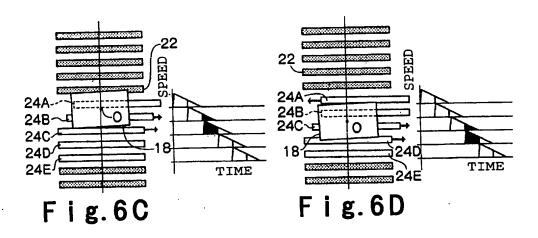
¹⁵ See the Examiner's Answer at page 11, lines 12-13.

¹⁶ See the Examiner's Answer at page 11, lines 13-17.

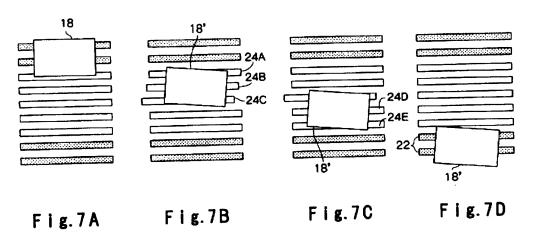
Accordingly, it is respectfully requested the rejections of Claims 1, 4-6, 11, 12, and 25-33 be reversed.

E. Letemps does not disclose or suggest the features of Claim 5.

Claim 5 recites the moving the at least one of the plurality of rollers includes independently moving at least two of the plurality of rollers in sequence one after another in conjunction with the conveyance of the glass plate. This feature is fully supported by the disclosure as originally filed. For example, Figures 6C and 6D of the present application, reproduced below, illustrate the roller 24C moving in sequence after the roller 24B. For example, page 18, lines 11-18 of the specification as originally filed states "FIG. 6C shows a state wherein the leading edge of the conveyed glass plate 18 in the conveying direction has made contact with the positioning roller 24C. Immediately after that, the positioning roller 24C is moved in the right direction in this figure, the movement of the positioning roller 24B in the right direction is decelerated, and the movement of the positioning roller 24A in the right direction is stopped."



The specification contrasts this sequential motion with that illustrated in Figures 7A and 7D, reproduced below, on page 22, lines 9-15, stating "Although the respective positioning rollers 24A to 24E are independently moved one after another in conjunction with the conveyance of the glass plate 18 in the example shown in FIGS. 6A to 6F, plural rollers among the positioning rollers 24A to 24E may be simultaneously moved to change the posture of the glass plate 18 as shown in FIGS. 7A to 7D."



Claim 5 depends from Claim 1, and therefore includes all of its limitations. Thus, "the moving the at least one of the plurality of rollers" recited in Claim 5 includes moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis.

Nevertheless, the Examiner's Answer asserts "If claim 5 requires sequential movement of two rollers: the rollers would move (i.e. rotate) in sequential order as the glass sheet touches the rollers in sequence." A rotational motion about a rolling axis of a roller is not the same as moving a roller in a direction substantially parallel to the rolling axis of the roller.

Moreover, as set forth at pages 11-12 and 26 of the Appeal Brief filed May 6, 2008,

Letemps describes that a whole portion 17 of a conveyor is moved as a single group. There is

no apparent reason to modify the known elements in Letemps in the fashion recited in Claim

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5. In particular, there is no apparent reason, other than hindsight in view of Appellants'

claimed invention, to perform the substantial reconstruction that would necessary to separate

each of the individual rollers 29 from the portion 17 and then move at least two of the rollers

29 in sequence one after another in conjunction with the conveyance of a glass plate.

Accordingly, it is respectfully requested the rejection of Claim 5 be reversed.

F. Conclusion.

In view of the foregoing, it is respectfully submitted that the cited references, whether considered alone or in combination, fail to disclose or suggest the combined features set forth in Claims 1, 4-6, 11, 12, and 25-33. Accordingly, it is respectfully requested the rejections of Claims 1, 4-6, 11, 12, and 25-33 be reversed.

Respectfully submitted,

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